

From: Charlene Edinboro
Sent: Tuesday, July 15, 2008 10:59 AM
To: Brian Murphy
Subject: RE: Cargill Budget

Sounds good - especially as the forensics folks would have to develop a test (they primarily work on mammals) and are likely to require a bit of time for that, since it's not a major focus of requests. They did point me to an avian scientist who might be helpful - haven't heard back from my message left for her yet... Will find out what there may be, just informationally...

From: Brian Murphy
Sent: Tuesday, July 15, 2008 7:04 AM
To: Charlene Edinboro
Subject: RE: Cargill Budget

Right you are on causation and our role in critiquing their logic.

I would rather frame the forensics issue as what could they have done to distinguish turkeys and chickens, but failed to do. I will revise the text to reflect this.

If there is some particularly useful test, we can propose it with a request for additional funding. My sense, however, is that Cargill will be adverse to collecting and analyzing samples. Instead they prefer to critique what the other side has done.

From: Charlene Edinboro
Sent: Monday, July 14, 2008 4:42 PM
To: Brian Murphy
Subject: RE: Cargill Budget

Hello, Brian-

I don't see any veterinary forensics included, but perhaps you had thought to put that into task 4? Certainly, even if there are no 'chicken' samples, the 'turkey' samples can be analyzed, yes? If so, that portion of budget would need to be increased. Perhaps it makes sense to test if there are actual samples in task 5... In any case, I have a call in to my contact at the vet forensics lab...

As an epidemiologist, I must point out we won't be able to say anything about causation - but can point out where others' logic may be breaking down in that regard...

Charlene

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From: Brian Murphy
Sent: Monday, July 14, 2008 1:26 PM

Murphy000217

MURPHY
DEPOSITION EX# 2

To: Melanie Edwards; Charlene Edinboro
Cc: Walt Shields
Subject: Cargill Budget

Please comment, particularly as to where I have over or under budgeted.

The expert report may be due as early as August 15. However, they are trying to arrange an October date.

Murphy000218

From: Charlene Edinboro

Sent: Thursday, July 17, 2008 5:06 PM

To: Brian Murphy

Subject: RE: Harwood Report

Thanks, Brian-

I'll take a quick look...

The expert I was trying to reach at UC Davis is out of town until next Friday, so I won't be able to get more info from that direction within our immediate timeframe...

Charlene

From: Brian Murphy

Sent: Thursday, July 17, 2008 11:45 AM

To: Charlene Edinboro

Subject: Harwood Report

FYI but I wouldn't spend too much time on it-just if it gives you some ideas. Cargill has other experts critiquing her work.

Murphy000221

From: Jennifer Martinez
Sent: Friday, July 18, 2008 12:21 PM
To: Brian Murphy
Subject: RE: First priority tasks
Importance: High

Hi Brian,

Can you please send me a copy of the email & retention letter that you sent to Faegre & Benson regarding project 0804400.000 PCA Analysis? I need to post the retention letter, sent to the client, into Vision, so I can open the project using the authorization you received. I have the version I drafted for you, but I'm not sure if that is what was actually sent to the client.

If they responded with a signed copy please send me that as well.

Thank you,
Jennifer Martinez

From: Brian Murphy
Sent: Thursday, July 17, 2008 11:35 AM
To: Jennifer Martinez
Subject: RE: First priority tasks

12 hours Melanie Task 4
12 hours Charlene Task 3
8 hours me Task 1

From: Jennifer Martinez
Sent: Thursday, July 17, 2008 11:33 AM
To: Brian Murphy
Subject: RE: First priority tasks

I can use that email to open up the task(s) so that you can charge to it. Which task(s) do you want to open?

Thank you,
Jennifer Martinez

From: Brian Murphy
Sent: Thursday, July 17, 2008 11:07 AM
To: Jennifer Martinez
Subject: FW: First priority tasks

Never mind I see we have one.

From: Brian Murphy
Sent: Thursday, July 17, 2008 8:40 AM
To: Jennifer Martinez
Subject: FW: First priority tasks

This is authorization for an initial \$8000. Can you use it to get a project #.

Murphy000006

From: Carney, Kristen Shults [mailto:KCarney@faegre.com]
Sent: Wednesday, July 16, 2008 6:37 PM
To: Brian Murphy
Subject: First priority tasks

First priority tasks that we discussed have been authorized. Please proceed.

LAWYER BIOGRAPHIES PRACTICE EXPERIENCE CONTACT US	
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Murphy000007

From: Charlene Edinboro
Sent: Thursday, July 24, 2008 6:45 PM
To: Brian Murphy
Subject: RE: First priority tasks

Hello, Brian-

I had planned to send you a brief summary this evening, though am still in reading mode. Am not sure I'll make that deadline, and thought I'd check in with you. What is the schedule?

Thanks-

Charlene

From: Brian Murphy
Sent: Friday, July 18, 2008 10:14 AM
To: Jennifer Martinez
Cc: Melanie Edwards; Charlene Edinboro
Subject: RE: First priority tasks

0101 Review Plaintiff Expert Reports
0201 Identify Turkey Samples
0301 Review Literature re Poultry Diets and Litter
0401 PCA Analysis for Litter Samples
0501 Compare Turkey Samples with WWTP, cattle, etc.
0601 General Comments on PCA Analysis
0701 Expert Report

From: Jennifer Martinez
Sent: Friday, July 18, 2008 12:31 PM
To: Brian Murphy
Subject: RE: First priority tasks

For the billing task numbers, please let me know if the following names are suitable or suggest changes, thanks.

0101 Review Expert Reports
0201 Identify Samples
0301 Review Literature
0401 PCA Analysis Comparison
0501 Chemical & Biological Analysis
0601 Comments on PCA Analysis
0701 Expert Report

Thank you,
Jennifer Martinez

From: Brian Murphy
Sent: Friday, July 18, 2008 12:23 PM
To: Jennifer Martinez
Subject: RE: First priority tasks

They asked that I not send them anything. I read the version you drafted to the client over the phone.

I am sure they would prefer that we not keep the letter you drafted.

Murphy000005

From: Charlene Edinboro
Sent: Monday, July 21, 2008 7:26 PM
To: Brian Murphy
Subject: RE: Cargill Budget

Hello, Brian-

Any word on the timeline? There are some refs that would take me to the end of the week to obtain, which might be too late...

Charlene

From: Brian Murphy
Sent: Monday, July 14, 2008 1:26 PM
To: Melanie Edwards; Charlene Edinboro
Cc: Walt Shields
Subject: Cargill Budget

Please comment, particularly as to where I have over or under budgeted.

The expert report may be due as early as August 15. However, they are trying to arrange an October date.

Murphy000219

From: Charlene Edinboro
Sent: Monday, July 28, 2008 5:36 PM
To: Brian Murphy
Subject: High-level summary of review

Attachments: chicken - turkey review.doc

Hello, Brian-

Here is the very high-level summary as we discussed on the telephone.
Charlene



chicken - turkey
review.doc (2...

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Murphy000215

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Attorney Work Product
Prepared at Request of Counsel

Task: Review literature re: Diets and litter of chickens and turkeys (diets, digestion, and waste products) to find distinguishing characteristics

What I researched and reviewed:

Call to UC Davis Veterinary Forensics – avian testing not in demand. A test could be prepared, but would require 1 month and might be expensive if for one time use. Was given the name of an avian scientist – she is on vacation.

Asked local shelter veterinarians for reference books – referred to avian/exotic veterinarian in Woodside, who lent several textbooks and made suggestions:

In agribusiness settings, waste products should be tidy and no distinguishing material should be found in droppings (theoretically).

Consider the parasite *Histomonas spp.* that makes turkeys sick and has little effect on chickens.

Contact Zoogen – avian DNA lab. Feces not used to sex birds since there is no DNA present. If other samples are available, tests could be developed to compare an unknown species sample with a library of known species to differentiate...

Five textbook chapters primarily describe Galliformes (Order of birds that includes chickens, turkeys, pheasants, quail, and grouse) and diseases.

Checked IVIS – online database with veterinary references, conference proceedings, textbook chapters.

Checked VIN – online veterinary network. No obvious references here.

Checked PubMed – published papers. Retrieved several that were available without charge.

Numerous citations regarding PCR to identify species in meat products, antibiotic resistance genes/markers, infectious diseases, etc.

Papers on breeding lines and feed conversion efficiency, etc.

Papers on genetic diversity in chicken and turkey chromosomes...

Contamination of feeds with bacteria, molds, etc...

Checked with library re: interlibrary loan for reference materials – not available in a timely manner. Consider ordering books online for overnight delivery. List of references from an old chicken project sent – not the papers themselves.

Unmet needs:

Composition of commercial feeds for chickens and turkeys.

Can we identify infectious agents in litter? – but with no information about the species, this may just reveal infection but not the impact on the birds...

Species-specific references within Galliformes (avian science/husbandry vs. avian medicine)

From: Charlene Edinboro

Sent: Friday, August 01, 2008 2:57 PM

To: Brian Murphy

Subject: RE: Turkey v Chicken Litter

Thanks, Brian-

Am not clear that I have a key for interpretation... Please let me know if I can be of help...

Charlene

Murphy000223

From: Charlene Edinboro
Sent: Monday, August 04, 2008 5:57 PM
To: Brian Murphy
Subject: Fyi - refs that may be of interest
Hello, Brian-

I am in and out of the office today, but wanted to be sure to give you these two citations, which I obtained from PubMed:

Griffin DK, Robertson LB, Tempest HG, Vignal A, Fillon V, Crooijmans RP, Groenen MA, Deryusheva S, Gaginskaya E, Carré W, Waddington D, Talbot R, Völker M, Masabanda JS, Burt DW. Whole genome comparative studies between chicken and turkey and their implications for avian genome evolution. BMC Genomics. 2008 Apr 14;9:168.

Pirgozliev V, Oduguwa O, Acamovic T, Bedford MR. Diets containing Escherichia coli-derived phytase on young chickens and turkeys: effects on performance, metabolizable energy, endogenous secretions, and intestinal morphology. Poult Sci. 2007 Apr;86(4):705-13.

Books that look interesting (but I haven't ordered):

Sainsbury D. Poultry Health and Management: Chickens, Turkeys, Ducks, Geese and Quail. 2000, Wiley-Blackwell.

Gillespie JR. Modern Livestock and Poultry Production, 7th edition. 2003, Delmar Cengage Learning.

I have no idea how helpful these might be for any of our projects...

One more that I found today: El Boushy ARY, van der Poel AFB. Handbook of Poultry Feed from Waste: Processing and Use. 2007, Springer.

Thanks-

Charlene

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Murphy000214

From: Charlene Edinboro
Sent: Tuesday, August 05, 2008 2:16 PM
To: Brian Murphy
Subject: Call availability

Hello, Brian-

As you've probably discovered, I tend to arrive after 10am local (I'm part-time). Today I have a major call at 2pm local. After that, I expect to be available for a call

This week:

W (~10-5)

Th (~10-whenever)

Next week:

M, Th (~10-whenever)

T (~11-whenever)

W (~10-5)

I am happy to come in earlier any of these mornings (have a call on Tues next week from 9:30-10:30+, however), and can arrange to come in on Fridays, too, if that works best...

Thanks-

Charlene

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Murphy000212

From: Charlene Edinboro
Sent: Tuesday, August 12, 2008 1:46 PM
To: Brian Murphy
Subject: RE: For our 2 pm EST call
Very nice, though not helpful for our evaluation...

From: Brian Murphy
Sent: Tuesday, August 12, 2008 8:48 AM
To: Charlene Edinboro
Subject: For our 2 pm EST call

Murphy000220

RE .txt

From: Charlene Edinboro
Sent: Thursday, August 21, 2008 4:40 PM
To: Brian Murphy
Subject: RE:

Thanks - will do... I gather I'll be looking these over - anything more than that?!

-----Original Message-----

From: Brian Murphy
Sent: Thursday, August 21, 2008 1:38 PM
To: Charlene Edinboro
Subject: FW:

Kristen gave me some additional information on the phone but I can't find it. When I do I will give you a call. Tell Melanie Edwards if you are going to use more than 8 hours. She is now the PM.

-----Original Message-----

From: Carney, Kristen Shults [mailto:KCarney@faegre.com]
Sent: Friday, August 15, 2008 4:56 PM
To: Brian Murphy
Subject:

<http://wwwbrr.cr.usgs.gov/Arsenic/FinalAbsPDF/garbarino.pdf>

From: Melanie Edwards
Sent: Wednesday, September 03, 2008 11:17 AM
To: Brian Murphy
Subject: RE: still not sure...

Attachments: ResultOutput.pdf

I think these are organized in decending order, largest positive to largest negative. It's just with only 4 variables it is difficult to see Olsen's error in interpretation. I ran a second PCA excluding nitrogen, which then changes the primary variable for PC1 from carbon to oxygen.

Olsen discusses how the largest positive scores identify the variables that are important to PC1, and thus if those variables are associated with a waste source then PC1 can be associated with the waste source. In our example, with only 4 variables PC1 is generally dominated by one variables thus making his point more clear rather than showing the flaw of it. Am I missing something?

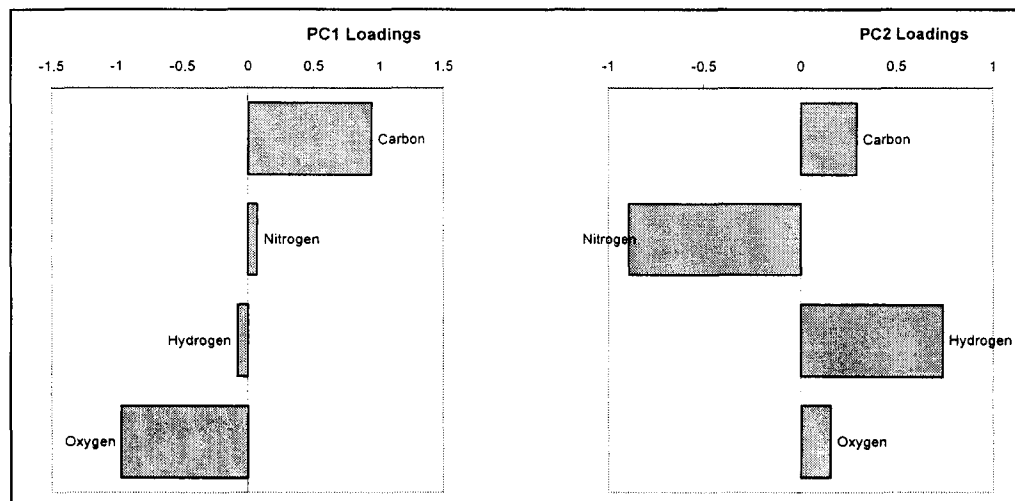
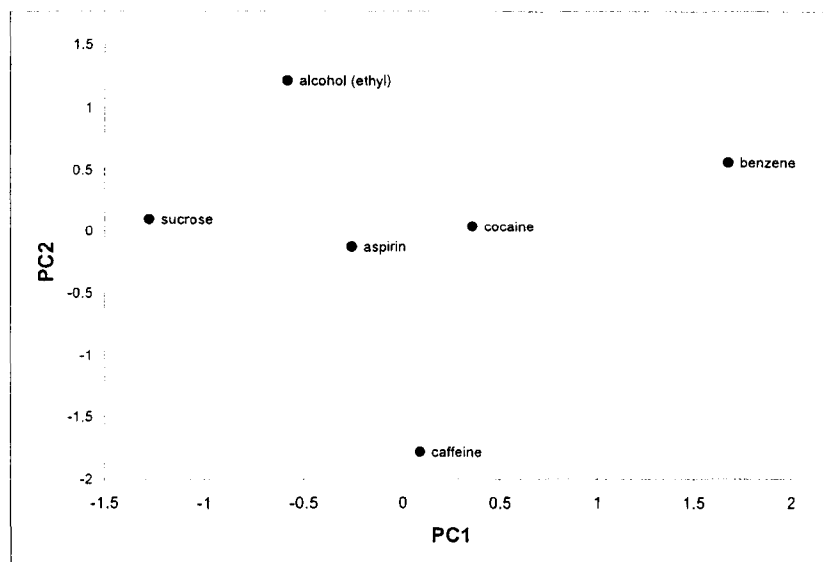
From: Brian Murphy
Sent: Tuesday, September 02, 2008 4:44 PM
To: Melanie Edwards
Subject: RE: still not sure...

Feel free to add or subtract compounds to get a better illustration.. I'll write some text to make the point.

From: Melanie Edwards
Sent: Tuesday, September 02, 2008 6:41 PM
To: Brian Murphy
Subject: still not sure...

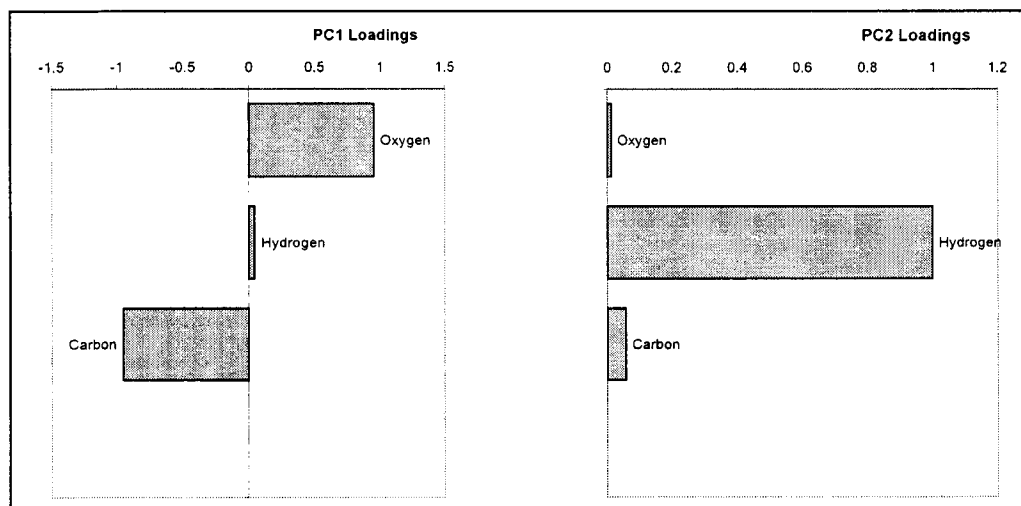
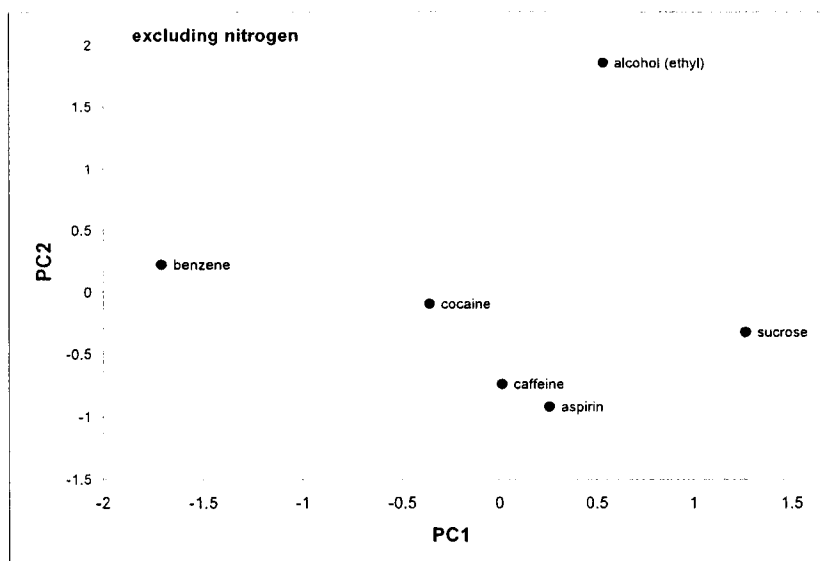
I'm still not convinced this shows what we're after. With only 4 variables it is difficult to make Olsen's point.

Murphy000227



PC1: Only Carbon has large positive loading
therefore if carbon can be shown to be related to a "source",
then samples high in PC1 can be related to this 'source' also [per Olsen report, top of page 6-53]

PC2: Only Hydrogen has large positive loading
therefore if hydrogen can be shown to be related to a "source",
then samples high in PC2 can be related to this 'source' also [per Olsen report, top of page 6-53]
alcohol (ethyl) has highest hydrogen component
but next highest (benzene) is not at all related to alcohol (ethyl)



PC1: Only Oxygen has large positive loading
therefore if oxygen can be shown to be related to a "source",
then samples high in PC1 can be related to this 'source' also [per Olsen report, top of page 6-53]

PC2: Only Hydrogen has large positive loading
therefore if hydrogen can be shown to be related to a "source",
then samples high in PC2 can be related to this 'source' also [per Olsen report, top of page 6-53]

Common Name	Molecule composition				Chemical Structure
	Carbon	Hydrogen	Nitrogen	Oxygen	
caffeine	8	10	4	2	C ₈ H ₁₀ N ₄ O ₂
sucrose	12	22	0	11	C ₁₂ H ₂₂ O ₁₁
benzene	6	6	0	0	C ₆ H ₆
cocaine	17	21	1	4	C ₁₇ H ₂₁ N ₁ O ₄
alcohol (ethyl)	2	6	0	1	C ₂ H ₆ O
aspirin	9	8	0	4	C ₉ H ₈ O ₄

Common Name	Molecular weight (percent)				Total Wt (g/mol)
	Carbon	Hydrogen	Nitrogen	Oxygen	
caffeine	49.48	5.19	28.85	16.48	194.19
sucrose	42.11	6.48	0	51.42	342.30
benzene	92.26	7.74	0	0	78.11
cocaine	67.31	6.98	4.62	21.10	303.35
alcohol (ethyl)	52.14	13.13	0	34.73	46.07
aspirin	60.00	4.48	0	35.52	180.16

From: Charlene Edinboro
Sent: Monday, September 15, 2008 5:36 PM
To: Brian Murphy
Subject: RE: Remind me

Some of this was discussed vis the dairy cattle in the area. Tom turkeys shouldn't have high estradiol, unless it was supplemented in the diet (I), while lactating cows might leave this. If the chickens are layers vs. broilers, their ages at the time of either laying or slaughter would dictate maturity, and thus, estradiol concentrations - again, as long as it's not in the feed. I think I made a reference to it potentially being a feed additive and there was much harumphing on the call... Short answer - sex of species of interest (not growing raising lots of roosters, for example). I don't remember your results - does this answer make sense?

From: Brian Murphy
Sent: Monday, September 15, 2008 1:56 PM
To: Charlene Edinboro
Subject: Remind me

why we expect to see a difference in estradiol between chickens and turkeys. It has something to do with the age at which they are harvested.

Murphy000222